

We Claim:

1. A dispensing cartridge for use in a dispenser housing comprising:

a flexible bag, the bag being sized to the dimensions of products contained within the bag,

a plurality of products compressed within the flexible bag in a dispensing direction,

a means for restraining the cartridge within a housing, and,

a means for releasing the products from the flexible bag so that upon release at least a number of the products are ejected from the bag into dispensing position within a housing.

2. The dispensing cartridge of claim 1 wherein the flexible bag is substantially rectangular.

3. The dispensing cartridge of claim 1 wherein the flexible bag is constructed from a thermo-plastic polymer.

4. The dispensing cartridge of claim 1 wherein the flexible bag is formed of panels having a thickness of from about 0.3 mil to about 15 mil.

5. The dispensing cartridge of claim 1 wherein the plurality of products compressed within the flexible bag is a plurality of paper products.

6. The dispensing cartridge of claim 5 wherein the paper products are selected from napkins, tissues and towels.

7. The dispensing cartridge of claim 5 wherein the paper products are compressed within the cartridge in a direction substantially parallel to their thickness.

8. The dispensing cartridge of claim 1 wherein the means for restraining the cartridge within a housing comprises at least one cartridge hook member attached to a flap attached to the top of the flexible bag.

9. The dispensing cartridge of claim 1 wherein the means for restraining the cartridge within a housing comprises a

flap attached to the top of the flexible bag, the flap defining one or more cartridge mounting holes.

10. The dispensing cartridge of claim 1 wherein the means for releasing the products from the flexible bag comprises:

5 a removable product release portion, removal of the product release portion creating an opening and allowing the plurality of products to expand out of the flexible bag, and
a tab attached to the removable portion which, when pulled, would allow the removal of the product release
10 portion.

11. The dispensing cartridge of claim 10 wherein the removable product release portion is defined by a series of perforations in the flexible bag.

12. A dispensing cartridge for dispensing individual paper
15 products from a dispenser housing, the dispensing cartridge comprising:

a flexible, substantially rectangular bag formed of material having a thickness of from about 0.3 mil to about 15 mil, the bag being sized to the dimensions of
20 the paper products contained within the bag,

a plurality of paper products compressed within the flexible bag in a direction substantially parallel to their thickness,

a flap attached to the top of the flexible bag,
25 the flap defining one or more cartridge mounting holes, by which to restrain the cartridge within a housing,

a product release mechanism comprising:

a removable product release portion, removal of the product release portion creating an opening
30 and allowing the plurality of products to expand out of the flexible bag so that at least a number of the products are ejected from the bag into dispensing position within a housing, and,

a tab attached to the removable product release portion which, when pulled, would allow the removal of the product release portion, and,

5 removable product access portions, defined by a series of perforations, removal of the product access portions creating openings in the cartridge.

13. The dispensing cartridge of claim 12 wherein the paper products that are compressed within the flexible bag are
10 napkins, tissues, or towels.

14. A dispensing system comprising:

a housing comprising:

a plurality of intersecting exterior
sidewalls defining an interior surface and an
15 interior area within the interior surface for receiving a cartridge,

a first end wall intersecting the exterior sidewalls and defining a dispensing throat,

a second end wall intersecting the exterior
20 sidewalls, and,

a means for securing a cartridge within the housing,

and,

a cartridge for insertion into the interior area,
25 the cartridge comprising:

a flexible bag, the bag being sized to the dimensions of the products contained within the bag,

a plurality of products compressed within the
30 flexible bag in the dispensing direction,

a means for restraining the cartridge within the housing, and,

a means for releasing the products from the flexible bag so that upon release at least a

number of the products are ejected from the bag
into dispensing position within the housing.

15. The dispensing system of claim 14 wherein the means for
securing a cartridge within the housing comprises at least
5 one housing hook member attached to the inside of an
exterior sidewall or to the inside of the second end wall.

16. The dispensing system of claim 14 wherein the means for
securing a cartridge within the housing comprises at least
one housing mounting hole or slot defined by at least one of
10 the exterior sidewalls or by the second end wall.

17. The dispensing system of claim 14 wherein the means for
restraining the cartridge within the housing comprises at
least one cartridge hook member attached to a flap attached
to the top of the flexible bag.

18. The dispensing system of claim 14 wherein the means for
restraining the cartridge within the housing comprises a
flap attached to the top of the flexible bag, the flap
defining one or more cartridge mounting holes.

19. The dispensing system of claim 14 further comprising
20 one or more protrusions extending from the interior surface
on one or more of the exterior sidewalls into the interior
area.

20. The dispensing system of claim 19 wherein the
protrusions include curved bumpers for contacting the
25 cartridge.

21. The dispensing system of claim 20 wherein the curved
bumpers include a plurality of ridges extending across the
curved bumpers perpendicular to the dispensing direction.

22. The dispensing system of claim 19 wherein the
30 protrusions are in contact with the first end wall.

23. The dispensing system of claim 19 wherein the
protrusions are rib members.

24. The dispensing system of claim 23 wherein the rib
members extend from the interior surface of the housing on

two opposing exterior sidewalls into the interior area for contacting the cartridge.

25. The dispensing system of claim 23 wherein the rib members extend from an interior surface of at least one
5 sidewall and from an end wall around the dispensing throat.

26. The dispensing system of claim 25 wherein the rib members contact products that are ejected from the bag and support the products in a dispensing position within the housing.

10 27. The dispensing system of claim 14 wherein one or more of the exterior sidewalls further comprises a door hingedly attached to the housing, the door being openable for insertion of a cartridge of products into the interior area.

15 28. The dispensing system of claim 14 wherein one or more of the exterior sidewalls further comprises a door hingedly attached to the housing, the door being openable for access to the means for securing a cartridge within the housing and the means for restraining the cartridge within the housing.

20 29. The dispensing system of claim 14 wherein the first end wall further comprises a door hingedly attached to the housing, the door being openable for insertion of a cartridge of products into the interior area.

30. The dispensing system of claim 14 wherein the flexible bag is substantially rectangular.

25 31. The dispensing system of claim 14 wherein the flexible bag is constructed from a thermo-plastic polymer.

32. The dispensing system of claim 14 wherein the flexible bag has a thickness of from about 0.3 mils to about 15 mils.

30 33. The dispensing system of claim 19 wherein the cartridge includes removable product access portions, removal of the product access portions creating openings in the cartridge, wherein at least one of the openings is disposed adjacent at least one of the protrusions so that the protrusion extends through the opening to contact the plurality of products.

34. The dispensing system of claim 33 wherein the removable product access portions are defined by a series of perforations in the flexible bag.

35. The dispensing system of claim 14 wherein the means for
5 releasing the products from the flexible bag comprises:

a removable product release portion, removal of the product release portion creating an opening and allowing the plurality of products to expand out of the flexible bag,

10 a tab attached to the removable product release portion which, when pulled, would allow the removal of the product release portion.

36. The dispensing system of claim 14 wherein the plurality of products compressed within the flexible bag is a
15 plurality of paper products.

37. The dispensing system of claim 36 wherein the paper products are napkins, tissues, or towels.

38. The dispensing system of claim 36 wherein the paper products are compressed within the cartridge in a direction
20 substantially parallel to their thickness.